1-15 (canceled)

16. (original) A method of compensation for illumination variation in an image scanner, comprising:

initiating image scanning, as soon as sufficient illumination is available, without waiting for illumination to stabilize;

monitoring the intensity of the illumination, along substantially the entire length of a scanline, during scanning; and

modifying an output of an imaging array, during scanning, in response to the intensity being monitored.

17. (original) The method of claim 16, further comprising:

monitoring the color of the illumination, along substantially the entire length of the scanline, during scanning.

18. (original) The method of claim 16, further comprising:

measuring, an initial intensity of the lamp, at a position corresponding to a particular pixel on a scanline;

measuring, at time T, an intensity of the lamp, at the position corresponding to the particular pixel on the scanline, during scanning;

measuring, at time T, the intensity at the particular pixel on the scanline;

correcting the intensity of the particular pixel for thermal noise; and

multiplying the corrected intensity of the particular pixel times the initial intensity of the lamp divided by the intensity of the lamp at time T.

19. (original) The method of claim 18, further comprising:

correcting the measurement of the initial intensity of the lamp for thermal noise; and

correcting the measurement of the intensity of the lamp at time T for thermal noise.

20. (original) The method of claim 16, wherein each time the step of monitoring the intensity of illumination is performed, the following step is performed more than one time:

measuring intensity values along a scanline.

21. (original) A method of compensation for illumination variation in an image scanner, comprising:

initiating image scanning, as soon as sufficient illumination is available, without waiting for illumination to stabilize;

measuring the intensity of the illumination, a first time, along substantially the entire length of a scanline, during scanning;

storing outputs of an imaging array for multiple scanlines;

measuring the intensity of illumination, a second time, along substantially the entire length of a scanline, during scanning;

computing interpolated intensity values between the first and second measurements of the intensity of illumination; and

using the interpolated intensity values to modify the stored outputs of the imaging array.